FISHERIES JOINT MANAGEMENT COMMITTEE
ANNUAL REPORT

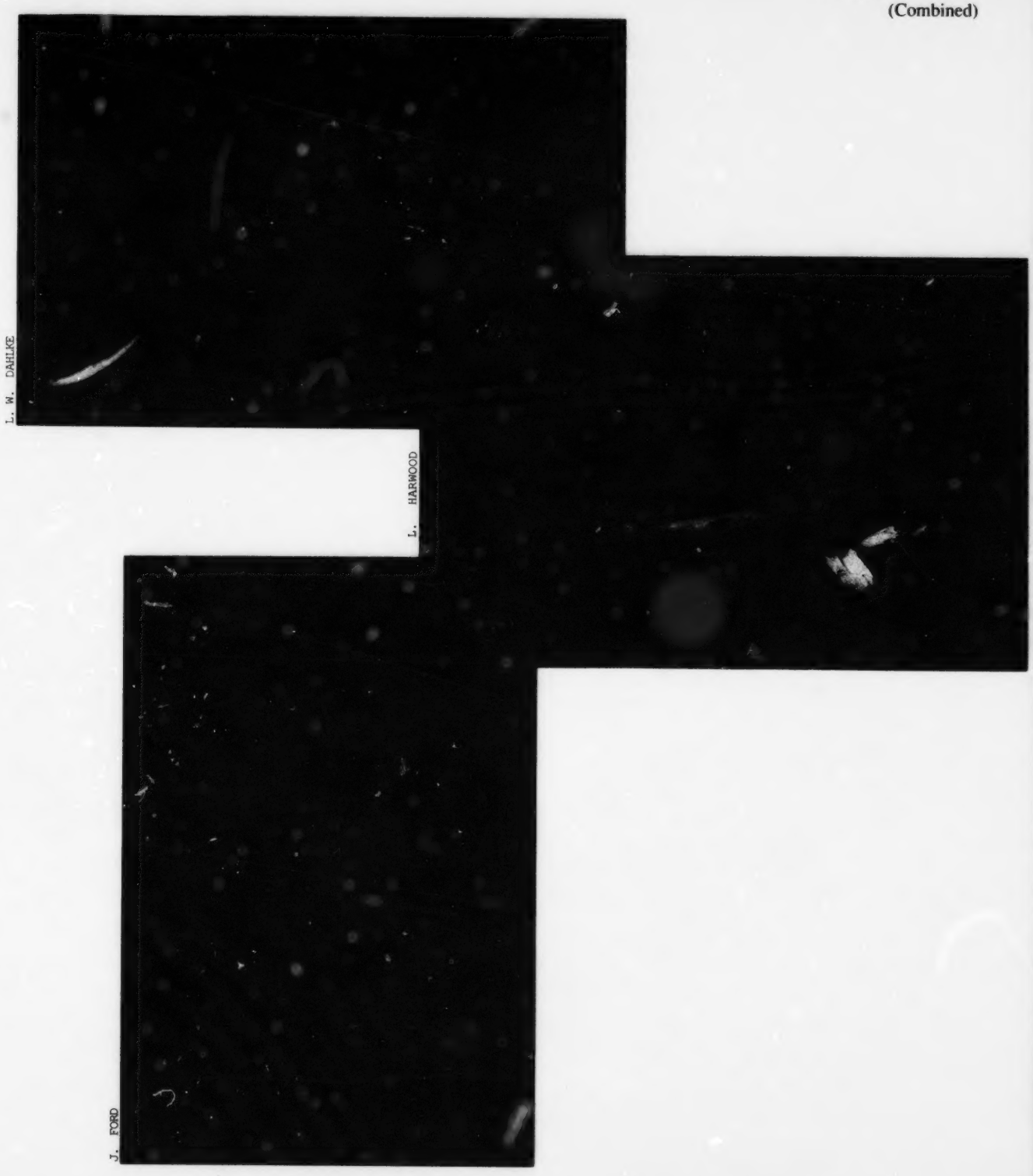
1987/88 1988/89 (Combined)

FISHERIES JOINT MANAGEMENT COMMITTEE

ANNUAL REPORT

1987/88 1988/89

(Combined)



L. W. DAHLKE

L. HARWOOD

J. FORD

90-02398/

Foreword

The Inuvialuit Final Agreement (IFA) sets out the terms of agreement between the Committee for Original Peoples' Entitlement representing the Inuvialuit of the Inuvialuit Settlement Region (ISR), and the Government of Canada, representing all citizens of Canada, among them the Inuvialuit.

The Fisheries Joint Management Committee (FJMC) was established in 1986 under the terms of the IFA, to provide advice to the Inuvialuit and Department of Fisheries and Oceans (DFO) on fisheries management and relevant issues. During its second and third years of operation, the FJMC worked closely with government agencies and renewable resource user groups on a variety of activities and programs. This report, the second in a continuing series of Annual Reports, provides a summary of the Committee's activities and projects for two fiscal years commencing April 1987 and concluding March 1989.

Membership

Chairman:

Gerald Yaremchuk (resigned Sept. 1987)
Robert Bell (effective Oct. 1987)

Members:

Alex Aviugana
Don Dowler
Nelson Green (resigned Nov. 1987)
Joseph Haluksit (effective Dec. 1987)
Michelle Roberge

Contents

INTRODUCTION 4

ACTIVITIES 5

1. Meetings **5**
2. Control of Fishing on Inuvialuit Lands **6**
3. Regulatory Amendments **6**
4. FJMC Operating Procedures **6**
5. Bowhead Whale **6**
6. Beluga Management Strategy **7**
7. Scientific Licenses **8**
8. Test Fishery Licenses **9**
9. Inuvialuit Renewable Resource Conservation and Management Plan **9**
10. Beaufort Sea Fishery Strategy **9**

PROGRAMS 10

1. Harvest Data Collection **10**
2. Beluga Hunt Monitoring **10**

RESEARCH/ASSESSMENT PROJECTS 11

1. Arctic Charr-Big Fish River **11**
2. Arctic Charr-Hydroacoustics, Big Fish River **11**
3. Arctic Charr-Banks Island **12**
4. Arctic Charr-Prince Albert Sound **12**
5. Arctic Charr-Minto Inlet **13**
6. Arctic Charr-Paulatuk Area **14**
7. Arctic Charr-Yukon North Slope **15**
8. Arctic Charr-Stock Separation **15**
9. Broad Whitefish-Tuktoyaktuk Peninsula **16**
10. Broad Whitefish-Stock Genetics and Site Fidelity **17**
11. Marine Fish-Sachs Harbour **17**
12. Beluga Observations-Johnson Point, Banks Island **17**
13. Beluga Tagging **17**
14. Ringed Seal Assessment-Thesiger Bay, Amundsen Gulf and Prince Albert Sound **18**

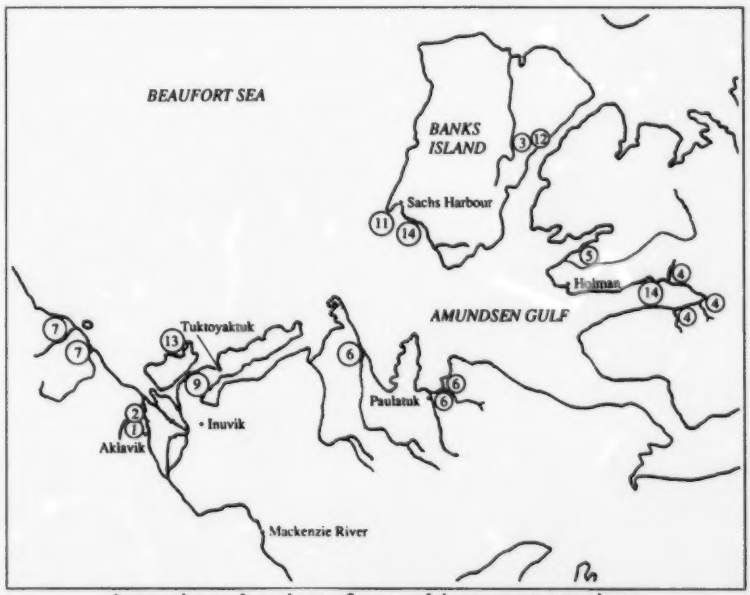
ACKNOWLEDGEMENTS 19

BUDGET-1987/88 20

BUDGET-1988/89 21

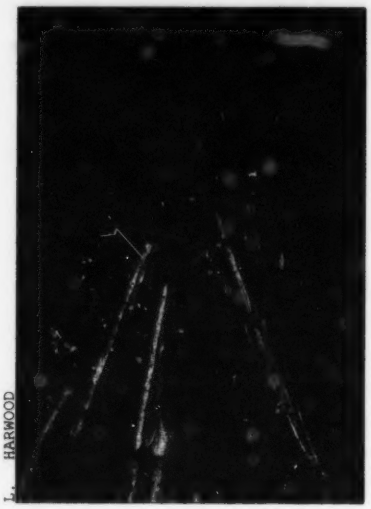
APPENDICES 22

A. FJMC Responsibilities **22**
B. Community Tour 1987/88 **23**



Approximate locations of research/ assessment projects

Introduction



L. HARWOOD

As prescribed under the Inuvialuit Final Agreement, the Minister of Canada's Department of Fisheries and Oceans established the Fisheries Joint Management Committee in 1986. The Committee was established to assist Canada and the Inuvialuit in administering the rights and obligations relating to fisheries under the IFA, to assist the Minister of DFO in carrying out his responsibilities for the management of fisheries, and to advise the Minister on all matters relating to Inuvialuit and Inuvialuit Settlement Region fisheries. The specific activities and responsibilities of the FJMC are provided in Appendix A.

A basic goal of the IFA is to protect and preserve Arctic wildlife, environment and biological productivity through the principles and practices of conservation, and, provide for the optimal harvest of wildlife (includes fish and marine mammals) by Inuvialuit, subject to conservation. A variety of activities and projects were undertaken or authorized by FJMC in 1987/88 and 1988/89 to realize this goal. In keeping with the co-operative management regime in place in the ISR, these activities were carried out in consultation with Hunter's and Trapper's Committees (HTC's), the Inuvialuit Game Council (IGC), DFO, and other government agencies. Activities are listed and described below, and include attendance at various meetings and workshops; review of permit and fishery applications; initation of a system for control of public fishing on Inuvialuit lands; review of proposed regulatory amendments; preparation of a plan to investigate commercial fishing opportunities in the ISR; and involvement in the preparation of species management plans.

The FJMC authorized and sponsored a number of specific research and monitoring projects designed to provide the necessary information for sound management of fishery resources in the ISR. Two of these projects, both dealing with monitoring of Inuvialuit harvests, were administered directly through the FJMC and conducted by Inuvialuit harvest monitors and field workers. The remaining projects, described below under Research/Assessment Projects, were conducted by DFO scientists, or by HTC's with technical assistance provided by FJMC and DFO. The selection of projects to be conducted in a given year is made following discussions with each community at regular HTC meetings or during the FJMC's Annual Community Tour, and through discussions with DFO.

Activities

1. Meetings

1987/88

Seven operational meetings of the FJMC were held during the fiscal year. FJMC committee members attended and participated in additional meetings and workshops with the following organizations:

* HTC's in Aklavik, Inuvik, Holman Island, Paulatuk, Sachs Harbour, and Tuktoyaktuk,
* Department of Economic Development and Tourism, Government of the Northwest Territories (GNWT), regarding future marketing studies for broad whitefish and Pacific herring in the Mackenzie Delta/Tuktoyaktuk Peninsula area,
* Inuvialuit Land Administration (ILA), regarding development of a special sport fishing license to serve as a registration system for access to 7(1)(a) and 7(1)(b) lands,
* United States Government and Inupiat, regarding transboundary fish and marine mammal concerns,
* Alaska/Inuvialuit Beluga Whale Committee (AIBWC), regarding beluga, and,
* Parks Canada, regarding the development of a cooperative management plan for the Yukon North Slope.

The FJMC conducted its second Annual Community Tour in January 1988. Meetings were held with HTC's in Aklavik, Inuvik, Holman Island, Paulatuk, Sachs Harbour, and Tuktoyaktuk to discuss the programs supported and/or carried out by the FJMC, and to provide an opportunity for the HTC's to identify their needs and concerns relating to fisheries in their area for the coming year. A summary of topics and discussions is provided in Appendix B.

1988/89

Five regular meetings and four teleconference meetings of the FJMC were held during the fiscal year. DFO scientists attended four of these to provide information on their research and discuss results. FJMC members attended and participated in additional meetings and workshops including:

* Two workshops on the IFA,
* HTC meetings in each of the six communities within the ISR,
* Regular meeting of each of the Wildlife Management Advisory Council (WMAC) - NWT and Environmental Impact Screening Committee (EISC), and three regular meetings of the IGC,
* Land-Use Planning Information workshop,
* Canada/Alaska Arctic Fisheries workshop,
* Discussion meeting with DFO, regarding Arctic Marine Conservation Strategy,
* Discussion meeting with Honourable Tom Siddon, Minister of Fisheries and Oceans, regarding Aklavik's application for a license to harvest one bowhead whale,
* A symposium on fish marking techniques,
* A symposium on the use of non-lethal techniques to estimate cetacean population parameters,
* Two workshops on the Paulatuk Community Conservation Plan,
* 1989 Alaska Eskimo Whaling Commission (AEWC) Annual Meeting, and
* Two meetings of the AIBWC.

2. Control of Fishing on Inuvialuit Lands

The FJMC has the responsiblity to establish a registration system to control fishing on Inuvialuit Lands [IFA, S.7(24); S.14(64d)]. The Committee recommended that registration be coordinated through the Inuvialuit Land Administration (ILA), with copies of all records sent to FJMC. Informal meetings with the ILA were held in 1987/88 to discuss development of a special sport fishing license (under the **Fisheries Act**) to serve as a registration system for access to 7(1)(a) and 7(1)(b) lands. DFO continues to manage and monitor fishing activities within the ISR while the registration system is being finalized.

3. Regulatory Amendments

Amendments to the Northwest Territories Fishery Regulations, the Yukon Fishery Regulations, and the Beluga Protection Regulations were drafted by DFO in 1986. These amendments have been entered into the annual regulatory process and are currently under review by FJMC. Reorganization of the commercial fishing areas in the Western Arctic to conform with ISR boundaries, and revisions to Schedule V of the Northwest Territories Fishery Regulations were initiated by DFO.

The following regulatory changes were implemented in 1987/88 after approval by IGC and the Aklavik HTC:
* Closure of Big Fish River and its tributaries, including Cache Creek, to all fishing, effective September 1987. The river will remain closed to fishing until further stock assessments are repeated in 1991.
* Closure of charr access routes within the Mackenzie Delta to all fishing during August, effective 1988.

4. FJMC Operating Procedures

In 1988, FJMC drafted and reviewed its Operating Procedures during three regular meetings. The Procedures were finalized and adopted in December 1988.

5. Bowhead Whale

1987/88

The FJMC attended several national and international meetings with marine mammal user groups and government regarding bowhead whales. Objectives and strategies for the amendment of the United States **Marine Mammal Protection Act** were discussed, in particular the removal of trade barriers on importation of bowhead products into Canada.

The FJMC reviewed an unsolicited proposal by L.G.L. Ltd. entitled "Study of the Ecology of Important Foods for the Bowhead Whale in the Canadian Beaufort Sea", provided by the Department of Supply and Services. The Committee supported the proposal, considering the work relevant given the potential for oil and gas development activities in the lower Mackenzie/Beaufort Sea area. The project was started in July 1988 and will continue through 1990.

1988/89

The community of Aklavik has long been interested in hunting bowhead whales from the inshore Beaufort Sea. The most recent organized attempts to renew bowhead hunting occurred in 1962, 1979 and 1985, but a hunt has not yet been conducted due to a lack of proper equipment, and the institution of legislation which excludes hunting of bowhead in Canada.

A Proposal to Harvest One Bowhead Whale was prepared by the Aklavik HTC in June 1988, and submitted to the Minister of DFO. In addition to providing details about the hunt, the proposal discusses historical aspects of bowhead hunting, previous applications, and the subsistence and cultural importance of a hunt.

A resolution to support Aklavik's proposal to harvest one whale was made by IGC in November 1988. In January 1989, FJMC recommended to the Minister of Fisheries and Oceans that a license be issued to the Aklavik HTC to land one whale. Discussion meetings were held about this proposal with the Minister of Fisheries and Oceans in February 1989 and with the Alaska Eskimo Whaling Commission in March 1989. The application is still pending.

6. Beluga Management Strategy

The Beaufort Sea Beluga Technical Working Group submitted their draft **Beaufort Sea Beluga Management Strategy** to FJMC in June 1987, and subsequently disbanded. The goal of the Strategy is 'to maintain a thriving population of beluga in the Beaufort Sea, and, provide for optimal harvest by Inuvialuit'. It provides structured guidance for long term management of beluga in the Canadian Beaufort Sea. The FJMC accepted the Strategy as a base working document, and provided copies to each HTC during the 1987/88 Community Tour.

A priority for FJMC in 1988/89 was to have this document ratified by the community resource users. The Community Consultation Team was formed, consisting of one representative from each of Aklavik, Inuvik, and Tuktoyaktuk; HTC Resource Persons; and with representation and assistance from FJMC. Four workshops were held between October 1988 and March 1989, during which the document was reviewed, discussed and presented in detail to the community resource users. The final draft will be ready by May 1989, and will be presented to FJMC, DFO, and industry at that time. The HTC's, FJMC, DFO, and IGC all have specific and important roles to ensure implementation of the Strategy.

The FJMC attended three meetings of the Alaska and Inuvialuit Beluga Whale Committee during 1987/88 and 1988/89. The AIBWC will prepare a management plan for Bering Sea beluga, including joint (Inupiat-Inuvialuit) management intiatives for the shared Mackenzie Delta stock, coordination of beluga research and harvest data collection in the ISR and Alaska, and discussion of matters of mutual interest with respect to beluga.

7. Scientific Licenses

The FJMC reviewed and approved the following applications to the Department of Fisheries and Oceans for Scientific Licenses:

i) University of Alberta (1987/88), to collect various fish species from the Mackenzie River and Delta for a preliminary/exploratory survey of local fish ecology,

ii) Seakem Oceanography Ltd. (1987/88), to collect starry flounder from the Tuktoyaktuk Harbour to assess potential lethal/sublethal effects of chronic contaminant input into the harbour on indigenous benthic fauna,

iii) Purdue University/Woods Hole Oceanographic Institution (1987/88, 1988/89), to tag and observe bowhead whales in the Canadian Beaufort Sea, and examine movements and behaviour of bowhead whales in response to noise associated with industrial activity in the Beaufort Sea,

iv) Canadian Wildlife Service (1987/88, 1988/89), to live-capture and release coregonids (cisco and whitefish) in the Tuktoyaktuk Peninsula area as part of a larger study monitoring effects of offshore oil and gas development on coastal bird populations,

v) L.G.L. Ltd. (1988/89), to collect, sample, and tag Arctic cisco on the Tuktoyaktuk Peninsula (Atkinson Point) and on the Yukon North Slope (Stokes Point) as part of a study examining the effects of the Endicott causeway development in Alaska on fish movement along the Beaufort Sea coast,

vi) University of Alberta (1988/89), to collect and sample northern pike in two lakes to examine fatty acid composition, and,

vii) L.G.L. Ltd. (1988/89), to sample the zooplankter: **Limnocalanus macrurus** in nearshore waters along the Yukon North Slope as part of a bowhead whale food availability study.

L. GRAF

Tagging Arctic cisco, Stokes Point, Yukon.

8. Test Fishery Licenses

The FJMC reviewed and approved two applications for Test Fishery Licenses in 1987/88:

* Holman HTC, for harvest of anadromous Arctic charr from the Kuuk, Naloagyok, and Kagluk rivers (Prince Albert Sound), and,

* Inuvik HTC, for harvest of broad whitefish and inconnu from the Anderson River, Liverpool Bay area.

9. Inuvialuit Renewable Resource Conservation and Management Plan

As prescribed by the IFA, the Wildlife Management Advisory Council (NWT) has the mandate to prepare a wildlife conservation and management plan for the ISR. A plan was produced co-operatively with FJMC in 1987, and published and distributed in 1988. The Inuvialuit Renewable Resource Conservation and Management Plan provides the details of a long-term strategy for conservation and management in the ISR, and provides resource users and managers with direction and reason for their actions, in order that the Inuvialuit gain maximum benefit from resources.

10. Beaufort Sea Fishery Strategy

In 1986, the Sachs Harbour HTC expressed an interest in the development of a commercial fishery for marine species offshore of Banks Island. Upon completion of a literature review in relation to this request in 1987/88 (See Research/Assessment item No.11), the FJMC approached the Department of Economic Development and Tourism of the GNWT to initiate a joint program. A strategy was prepared by FJMC in 1988/89 to identify and quantify fishery resources, and evaluate commercial fishing opportunities in the Beaufort Sea and Amundsen Gulf areas. The Strategy provides a 'blueprint' on how and when it is feasible, practical, and biologically and economically acceptable to pursue commercial fishing opportunities and options. It will assist FJMC in identification and initiation of projects which address the IFA concept of optimum use of renewable resources in the region, according to and consistent with the principles of conservation.

Programs

1. Harvest Data Collection

The FJMC is responsible for monitoring native subsistence harvests of both fish and marine mammals, and sport fishing on Inuvialuit lands. DFO continues to be responsible for monitoring commercial harvests. A working group, consisting of members from IGC and government fish and wildlife agencies was formed in 1987 to develop a subsistence harvest study. This study, called the 'Inuvialuit Harvest Study' acquires information necessary for IGC, the three wildlife co-management committees established under the IFA [FJMC, WMAC(North Slope), WMAC(NWT)], and the Environmental Impact Screening Committee and the Environmental Impact Review Board.

L. HARWOOD

Beluga whale monitor collecting biological samples.

The FJMC contributes funds annually to the Inuvialuit Harvest Study.

The overall objective of the harvest study is to provide a continuous, long-term record of Inuvialuit harvests, to be used for responsible fisheries and wildlife management activities, and to estimate compensation regimes in the context of industrial development in the ISR. Harvest data are collected on a monthly basis from all hunters in the ISR. The first Inuvialuit Harvest Study report will be completed in Spring 1989.

2. Beluga Hunt Monitoring

Each July, residents from Inuvik, Tuktoyaktuk, and Aklavik participate in a traditional harvest of beluga whales from the Mackenzie Estuary. The total annual harvest is approximately 130. While the harvest was monitored by DFO from 1983 to 1986, the FJMC assumed responsibility for the program in 1987, and coordinated the program in 1987 and 1988.

Inuvialuit hunters were hired as whale monitors from Tuktoyaktuk (1) and from coastal hunting camps in the Estuary (5). Monitors record the number of animals struck and landed, and the sex and size of the landed whales. They also take biological samples, and make a report after the whaling season to FJMC and their respective HTC's. The analysis of the biological samples (e.g. aging teeth) is conducted by DFO, and harvest statistics are published jointly. In 1988, monitors also collected liver and skin samples for a study of stock discreteness with the North Slope Borough (Alaska).

Research/Assessment Projects

The FJMC authorized various inventory, assessment, and research projects to be conducted on fish and marine mammal populations or stocks in the Inuvialuit Settlement Region, as summarized below:

1. Arctic Charr-Big Fish River, 1987/88, 1988/89

Arctic Charr of the Big Fish River were harvested in both subsistence and commercial fisheries by residents of Aklavik. In 1986, the community of Aklavik expressed concern that the fish were smaller and fewer in number. Prompted by concern from both the community and DFO, FJMC requested a complete closure of the river to fishing; the river was closed in 1987 and remained closed in 1988.

In 1987, FJMC authorized a study to determine charr population numbers and to gather size and age information about the stock. The Aklavik HTC repeated the study in 1988, to determine effects of the closure on the population. Though attempts to count the number of fish using a weir during the upstream run were unsuccessful in both years (weir washed out by high water), biological information was obtained and population size was estimated using the "Petersen" (mark-recapture) method.

Comparison of findings from 1987 and 1988 indicated no detectable increase in the population over the year. However, there was a noticeable increase in average length and number of spawners, suggesting recovery of the stock has begun.

In order to benefit completely from the recovery now underway, the Aklavik HTC decided Big Fish River should remain closed to fishing for at least two more years. Further population estimates will be done on the Big Fish River after 1990 to assess stock size and recovery at that time.

Arctic charr Petersen estimate, Fish Hole, Cache Creek.

2. Arctic Charr Hydroacoustics-Big Fish River

A hydroacoustics study was done concurrently with the 1987 weir operation at Big Fish River (see Research/Assessment Project No.1), in order to evaluate the effectiveness of this alternative charr enumeration method. Field testing was completed, and the utility of the hydroacoustic system was demonstrated. Site selection criteria and suggestions for deployment of the system were provided, but additional trials are still required.

3. Arctic Charr-Banks Island, 1987/88

The community of Sachs Harbour expressed interest in developing a commercial or sport fishery for Arctic charr along the east coast of Banks Island. A gillnet test fishery was conducted in two unnamed lakes on the east coast, and in the Thomsen River in 1987. It was concluded that charr populations in the two lakes were not large enough to support a commercial fishery. As well, transportation costs, lack of freezing and storage facilities, and difficult logistics would make a fishery in this area prohibitive. A healthy population of trophy size lake trout was present in one of the lakes, and a sport fishery was thus considered. However, high cost, harsh environment, and difficulties associated with transportation again prohibit the development of such a fishery. Data on Arctic charr from the Thomsen River were inconclusive since sampling did not occur during the main run.

4. Arctic Charr-Prince Albert Sound

Kuuk River, 1987/88

Residents of Holman expressed an interest in the development of a commercial Arctic charr fishery in Prince Albert Sound. In 1987, the third year of an assessment/test fishery program was completed in the Sound. On the Kuuk River a direct count and biological evaluation of the upstream charr migration was done in 1987. While the Kuuk River charr stock will not alone support a viable commercial fishery, it could be an important contributor to a fishery if other commercially anadromous stocks are found in the Sound, and may provide a viable sport fishery.

Kagluk River, 1987/88, 1988/89

A gillnet test fishery for Arctic charr was conducted in 1987 at the Kagluk River. The charr were healthy and closely resembled Kuuk River charr in growth and appearance. Further data were required before a recommendation could be made as to the commercial viability of this stock. In 1988, a weir fishery was successfully conducted at this site, and a total count obtained, along with biological samples. The stock was found to be too small to support an intensive commercial harvest.

Naloagyok River, 1988/89

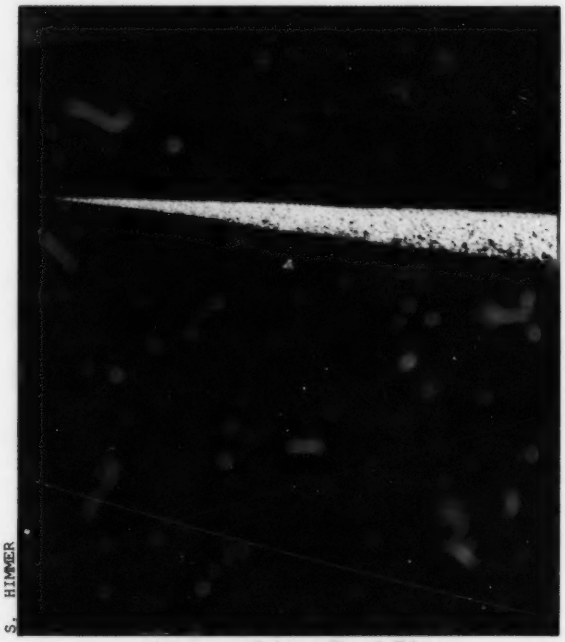
In August 1988, a site evaluation at the Naloagyok River was done to determine suitable weir and boat/plane access for a future test fishery.

5. Arctic Charr-Minto Inlet, 1987/88

Residents of Holman expressed concern in 1987 over a decline in the abundance and size of charr in the Kuujjua River subsistence fishery. At the same time, there was interest in the development of a commercial fishery in other rivers in the Minto Inlet area. In response, an aerial survey on the Kuujjua River and two nearby unnamed rivers was conducted. Biological samples were obtained from the Kuujjua River, and harvest from this subsistence fishery was recorded. It was determined that these three rivers were candidates for future weir enumerations and biological sampling programs.

D. B. STEWART

Weir removal on Kuuk River.



Gillnet test fishery, Brock River

6. Arctic Charr-Paulatuk Area

Hornaday River, 1987/88, 1988/89

The last major commercial fishing operation in the ISR was an Arctic charr fishery located at the Hornaday River, east of Paulatuk. The fishery has been regulated by DFO under quota since 1968. Enumeration of the stock was identified as a priority by the Paulatuk HTC, and for this reason, the FJMC sponsored stock assessments here from 1986 to 1988. Field operations were conducted or coordinated by members of the Paulatuk HTC.

In 1986, a test fishery was done to evaluate stock status, and to examine the feasibility of using a fish weir for commercial fishing. It was recommended that the river be closed to commercial fishing to allow recovery of the stock. On the recommendation of the Paulatuk HTC, DFO has ceased issue of commercial fishing licenses for this river, although a subsistence fishery continues.

In 1987, a second study was undertaken to enumerate the upsteam charr migration at the Hornaday River. A partial count was obtained before the fish weir washed out, and a number of fish were sampled, measured and tagged. Catches in the domestic fishery were greater in 1987 than in 1986, and the fish were larger and in better condition. The domestic fishery at the Hornaday was enumerated in 1988, and further stock assessments are planned for the future.

Brock River, 1987/88

A gillnet test fishery was conducted on the Brock River by the Paulatuk HTC in 1987 to determine its commercial potential. Though the study was hampered by bad weather, it was concluded that the Brock River may be able to support a commercial fishery. However, high and variable water levels preclude use of a weir.

Horton River, 1988/89

To determine its commercial potential, the Paulatuk HTC conducted a gillnet test fishery for Arctic charr at the Horton River in 1988. Preliminary results indicate there may be two charr stocks in the river; a relict, slow growing stock, and a larger and possibly commercially viable one.

7. Arctic Charr-Yukon North Slope, 1987/88, 1988/89

FJMC provided funds to assist DFO in estimating population size and migration patterns, and to conduct biological sampling of Arctic charr from the Firth and Babbage rivers in 1987. Fish were tagged and subsequently recaptured, although sample size was too small to make definitive management recommendations.

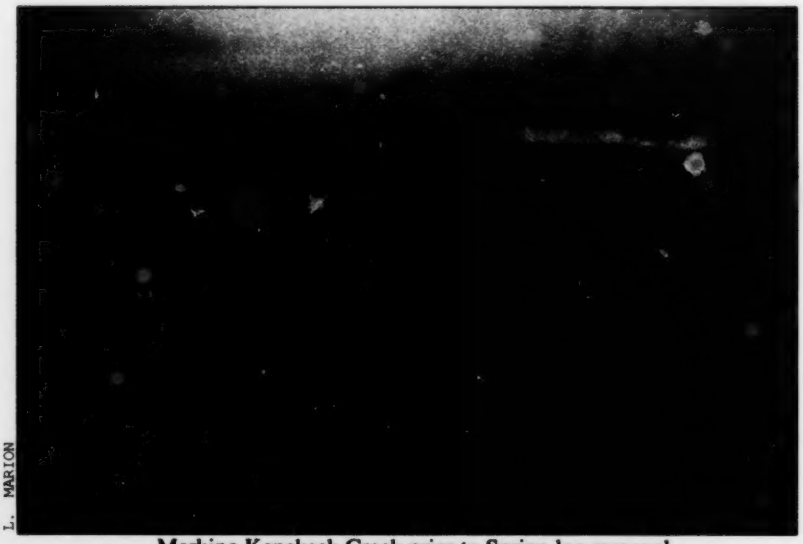
A further attempt to estimate the size of the Babbage River charr stock was made in August 1988 using a mark-recapture method. Two hoopnets were installed, but sudden increases in water velocity and discharge volume, along with an increase in the debris load, made it impossible to maintain the nets. Electrical barriers or hydroacoustic census techniques are being evaluated in 1989 as alternate enumeration methods for rivers on the North Slope, such as these, which are subject to high and variable flows.

8. Arctic Charr Stock Separation, 1987/88, 1988/89

Through the community based Arctic charr projects, the FJMC contributed biological samples, as well as funding, to a DFO study of Arctic charr stock genetics in the Western Arctic in both 1987/88 and 1988/89. Charr were measured, and samples provided for genetic analyses. Preliminary results indicate that charr exhibit a high degree of structuring into discrete stocks, and that this discreteness is retained, for at least some rivers, during all life-history stages.

L. HARWOOD

Test fishery, Horton River



Marking Keneksek Creek prior to Spring log removal.

9. Broad Whitefish-Tuktoyaktuk Peninsula, Stream Enhancement, 1987/88, 1988/89

Tuktoyaktuk and Inuvik residents have reported a reduction in broad whitefish catches along the Tuktoyaktuk Peninsula, and it was suggested that the natural logjams blocking streams in the area may be a contributing factor. Manual clearing of logs at Keneksek (1986) and Canyanek (1987) creeks was not found to be effective because subsequent storm surges reblocked them. Radio tagging of whitefish in Keneksek Creek during the Summer of 1987 indicated fish movement from and to blocked creeks did indeed occur, but only during high water events. This work also suggested that the fall migration downstream was followed by a westward movement along the coast.

During FJMC's Community Tour in 1987/88, the Tuktoyaktuk HTC proposed to mechanically clear creek blockages. Habitat recommendations were provided by DFO. The HTC will clear two creeks during early Spring 1989, and site inspections will follow in 1989/90.

10. Broad Whitefish-Stock Genetics and Site Fidelity, 1988/89

FJMC contributed funds to this new DFO project, designed to examine stock identity and spawning ground fidelity in Mackenzie watershed broad whitefish. Late Fall samples of pre-spawning fish were obtained from within, and south of, the ISR, and samples may be forthcoming from the Peel River and Ramparts Rapids areas of the Mackenzie mainstream. 1988/89 results are still being analyzed. The project is scheduled to continue for two more years.

11. Marine Fish Test Fishery-Sachs Harbour Area, 1987/88

The Sachs Harbour HTC stated an interest in the development of a commercial fishery for marine shellfish and finfish near the community. In response to this, a report was prepared on behalf of FJMC which summarizes available biological information on these resources along the west coast of Banks Island. The authors concluded that a small scale exploratory fishery in the region of Sachs Harbour is warranted.

12. Beluga Observations-Johnson Point, Banks Island, 1987/88

The Sachs Harbour HTC expressed an interest in hunting beluga whales off the east coast of Banks Island. A visual shore-based survey for beluga was conducted at Johnson Point by the Sachs Harbour HTC, in conjunction with an Arctic charr test fishery (Research/ Assessment Project No.3). Whales were not observed during the survey period.

13. Beluga Tagging, 1988/89

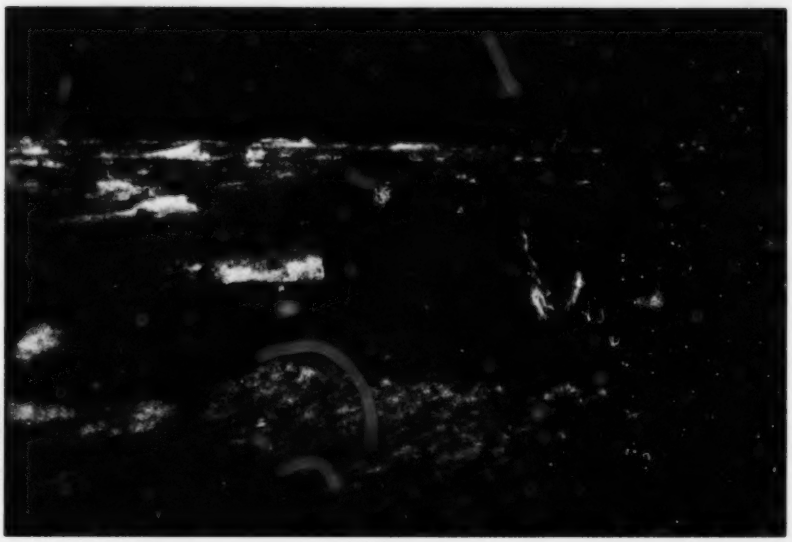
FJMC contributed funds to a DFO project to tag beluga whales in the Mackenzie Estuary. This is a new project, with 1988 being the pilot year. The program should provide important management information on beluga movements and behaviour, particularly in later years when satellite telemetry may be used.

During late July, local hunters and DFO staff coordinated the capture and handling of three beluga, and DFO and Alaskan scientists placed VHF radio transmitters on two of these. Aerial surveys were conducted offshore and in the Estuary after the tags were attached; one of the tagged animals was relocated and tracked over a five day period following tag placement.

14. Ringed Seal Assessment - Thesiger Bay, Amundsen Gulf and Prince Albert Sound, 1987/88 and 1988/89

The Sachs Harbour hunters noticed a reduction in ringed seal pups in the harvests since 1984. Consequently, a study was conducted on the status and condition of the ringed seal population in the Thesiger Bay area (1987, 1988) and in Amundsen Gulf and Prince Albert Sound (1988). Specimens from the annual Fall harvest were examined, measured, and sampled in both years, and an aerial survey was flown in June 1988.

Almost a third of the 1988 sample was composed of pups, a noticeable increase from 1987 when only 3% were pups. Comparison of 1988 with 1987 data on age structure and reproductive status indicated a substantial failure of recruitment from 1984 to 1987, but that it was temporary and reproductive activity returned to normal levels in 1988. There was no evidence of poor body condition, widespread disease, heavy parasite infestation, or high pollutant contamination in the samples.



D. ANDRIASHEK

Acknowledgements

The FJMC gratefully acknowledges Vic Gillman, DFO Area Manager, Western Arctic, for his valuable assistance with the Committee's projects and activities. For the planning and conduct of research/assessment and harvest monitoring projects, we thank the HTC members, staff at DFO Inuvik and Winnipeg, consultants, and the Harvest Study field workers and Coordinator. The efforts, care and energy of these people and DFO Ottawa are greatly appreciated, and collectively led to a workable system for cooperative management of fishery resources in the ISR.

The staff at the Joint Secretariat provided technical and administrative assistance for operation of the FJMC. In particular we thank Norm Snow, and Resource Biologists Stefan Himmer (1987) and Lois Harwood (1988/89). We are grateful to Linda Graf for her efforts in the design and layout of this report, and to the staff of Printworks, Edmonton, for its production.

Budget – 1987/88

Project Name		Expenditures ($K)
DFO Contribution Agreement to Joint Secretariat:		
Committee Operations		155.0
Harvest Study		75.0
Beluga Hunt Monitoring		18.0
Beluga Management Strategy		4.0
Beaufort Sea Fishery Strategy		5.0
Mackenzie Delta Fishery		3.0
	Total	260.0
DFO Administered Funds:		
Govt. Appointee Committee Operations		49.0
Capital Equipment		10.0
Regulation of Fishing		30.1
Arctic Charr		
– Big Fish River		33.3
– Yukon North Slope		42.9
– Hornaday/Brock Rivers		32.4
– East Banks Island		38.4
– Stock Separation		19.6
– Hydroacoustics		13.9
– Kuujjua River		54.1
Broad Whitefish		
– Stream Enhancement		9.4
– Radio Tagging		19.7
Ringed Seal Population Evaluation		22.5
Beluga Hunt Monitoring		7.6
	Total	382.9
	TOTAL	642.9

Budget – 1988/89

Project Name		Expenditures ($K)*
DFO Contribution Agreement to Joint Secretariat:		
Committee Operations		145.0
Harvest Study		85.0
Beluga Hunt Monitoring		23.0
Beluga Management Strategy		26.0
	Total	279.0
DIAND Contribution Agreement to Joint Secretariat:		
Beaufort Sea Fishery Strategy		30.0
Whale Meetings		57.0
	Total	87.0
DFO Administered Funds:		
Govt. Appointee Committee Operations		20.0
Regulation of Fishing		40.0
Arctic Charr		
– Big Fish River		26.0
– Yukon North Slope-Babbage River		33.0
– Hornaday/Horton Rivers		27.0
– Prince Albert Sound		48.0
– Stock Separation		24.0
Broad Whitefish		
– Stream Enhancement		13.0
– Stock Separation		24.0
Ringed Seal Population Evaluation		46.0
Beluga		
– Sectioning Teeth		3.0
– Tagging		14.0
	Total	318.0
	TOTAL	665.0

* As of 28 February 1989

Appendices

Appendix A

As described under Section 14 (64) of the Inuvialuit Final Agreement, the Fisheries Joint Management Committee shall, among its other activites:

(a) review information on the state of fishing in waters on 7(1)(a) and 7(1)(b) lands and Crown lands in any areas where the Inuvialuit have an interest and fishery related activities on 7(1)(a) and 7(1)(b) lands;

(b) identify areas of water on 7(1)(a) and 7(1)(b) lands where fishing has taken place and predict where fishing may in the future take place;

(c) determine current harvest levels;

(d) develop, maintain and control a public registration system for fishing in waters on 7(1)(a) and 7(1)(b) lands and for entry on 7(1)(b) lands for the purpose of fishing;

(e) restrict and regulate the public right to enter on 7(1)(b) lands for the purpose of fishing where such restriction and regulation is required for the conservation of a stock, to prevent serious conflict with Inuvialuit activities, to prevent interference with other Inuvialuit use of the land to which they have title or to prevent unreasonable interference with Inuvialuit use and enjoyment of the land;

(f) deny entry to persons who abuse the right;

(g) allocate subsistence quotas among communities;

(h) determine the reporting requirements and review the role of the Hunters and Trappers Committees in regulating the subsistence harvest and collection of harvest statistics;

(i) make recommendations to the Minister of Fisheries and Oceans on subsistence quotas for fish, harvestable quotas for marine mammals, Inuvialuit commercial fishing, allocation of the preferential fishing licences to be granted undersub-sections (29) to (32), regulations regarding sport and commercial fishing in waters on 7(1)(a) and (b) lands and the identification of waters where such fishing may be prohibited; and

(j) advise the Minister of Fisheries and Oceans on regulations, research policies and administration of fisheries generally affecting the Inuvialuit Settlement Region, and on any new international agreements being developed that might apply to Inuvialuit fisheries.

Appendix B

The FJMC conducted a tour of the six communities within the Inuvialuit Settlement Region from January 19-24, 1988. Meetings were held with the HTC's to discuss community needs and concerns for fish and marine mammal resources within their area. The following summarizes projects proposed for 1988/89 which arose from these discussions. A tour could not be held during 1989 due to funding constraints.

Community	Species of Interest	Proposed Project
INUVIK	Broad Whitefish	1) Creek Blockages - Tuktoyaktuk Peninsula
		2) Management Plan
		3) Test Fishery - Marketing
	Lake Trout	4) Husky Lakes - Abundance
	Beluga Whale	5) Hunt Monitoring
		6) Management Plan
	Bowhead Whale	7) Free Trade Zone for Whale and By-Products
AKLAVIK	Arctic Charr	1) Big Fish River - Closure/Enumeration
		2) Rat River - Enumeration
	Beluga Whale	3) Management Plan
TUKTOYAKTUK	Broad Whitefish	1) Canyanek/Keneksek Creeks Blockage Clearing
	Beluga Whale	2) Management Plan
SACHS HARBOUR	Seals	1) Movement and Distribution
	Marine Fish/ Shellfish	2) Test Fisheries
	Beluga Whale	3) Availability
	Arctic Charr	4) Test Fisheries
HOLMAN ISLAND	Arctic Charr	1) Weir Fishery - Kagluk River
		2) Test Fishery - Kuujjua River
PAULATUK	Arctic Charr	1) Test Fishery - Roscoe/Horton Rivers
		2) Enumeration/Sampling - Hornaday/Brock Rivers